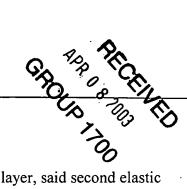
## **AMENDMENT**

In the claims:



- 1. A microfluidic device comprising:
  - (a) a first elastic layer;
  - (b) a second elastic layer on top of said first elastic layer, said second elastic layer comprising a pump and valve system for controlling the flow of fluid within said fluid flow channel;
  - (c) a fluid flow channel within said elastic layer, said flow channel being about 500  $\mu m$  or less; and,
  - (d) a means for providing a sample of fluid from said fluid flow channel to a mass spectrometer, said sample providing means comprising a capillary having at least a portion thereof being located within said fluid flow channel and being heretically sealed with said flow channel, said capillary being in operatively interconnected to said mass spectrometer for introducing said sample fluid from said fluid flow channel into said mass spectrometer for analysis.